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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SOLOLA, TAOFIQ A

ART UNIT PAPER NUMBER

1626

DATE MAILED: 12/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/622,001	Applicant(s) ISHII ET AL.	
	Examiner Taofiq A. Solola	Art Unit 1626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 06 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-3, 14-21, 23 and 24 is/are pending in the application.
- 4a) Of the above claim(s) 2 and 14-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1, 3, 21, 23 and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1</u> . | 6) <input type="checkbox"/> Other: _____ |

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Claims 1-3, 14-21, 23-24 are pending in this application.

Claims 4-13, 22, are canceled.

Response to Restriction Requirement

Due to the submission of Table R3 with the Paper filed 9/16/04, claim 3 and its dependent new claims 23-24 are now rejoined with the elected invention of claims 1 and 21.

Applicant's arguments filed 9/16/04 have been fully considered but they are not persuasive. Applicant states that the last requirement is an election of species not a restriction requirement. This is not persuasive because the heading clearly shows it is a restriction requirement and the citing of 35 USC 121 controls. Applicant also argues that restriction usually identifies exclusive groups. This is not persuasive because patent examiner is not one size fits all. In the instant, Applicant was required to select a set of compounds as reagents for any of the claimed processes. Applicant did just that.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1, 3, 21 are rejected under 35 U.S.C. 101 because 101 because the claimed invention is not supported by either an asserted utility or a well established utility. Under US patent practice the process of making a compound is not a utility, the compound must have an asserted or a well established utility. In the instant process, claims 1, 3 and 21 fail to set forth/recite the compound being made. By amending claim 1 to recite α -hydroxy- γ,γ -dimethyl- γ -butyrolactone as the product and amend claim 3 accordingly the rejection would be overcome.

Applicant's arguments filed 9/16/04 have been fully considered but they are not persuasive. Applicant contends that "an organic compound" is a name of the product. This is

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not persuasive because an organic compound is not sufficient identity of a compound. It is analogous to saying "automobile" or "vehicle" is the same as "Toyota Camry", Infinity QX4 SUV "Ford Trailer", etc. Applicant also argues that the instant invention provides a class of imide catalysts useful in specific reactions. This is not persuasive because the claims are not drawn to the catalyst but to processes of making organic compounds. Applicant refers to the attached references D1-D5 as evidencing the utility of the instant process. This is not persuasive because D1-D5 fail to provide such evidence. Otherwise, Applicant would have disclosed such evidence in the specification.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 3, 21 are also rejected under 35 U.S.C. 112, first paragraph. Specifically, the claimed invention is not supported by either an asserted utility or a well established utility for the reasons set forth above.

Claims 1, 3, 21, are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification fails to provide written description for how to perform the instant process using any compound capable of forming stable radical of (A1), (A2) and (A3) or any radical scavenging compound of (B1), (B2) and (B3). Applicant must show possession of the

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invention by describing it with all the claimed limitations. *Lookwood v. American Airlines Inc.* 107 F.3d 1565, 1572, 41 USPQ2d 1961, 1966 (Fed Cir. 1997). By reciting the process as comprising the reaction of 2-propanol with ethyl acrylate in the presence of N-hydroxyphthalimide in claim 1 the rejection would be overcome.

Claims 1, 3, 21, are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for making α -hydroxy- γ,γ -dimethyl- γ -butyrolactone comprising the reaction of 2-propanol with ethyl acrylate in the presence of N-hydroxyphthalimide, does not reasonably provide enablement for making all organic compounds. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to practice the invention commensurate in scope with these claims. The claimed process is not believable on its face.

For rejection under 35 U.S.C. 112, first paragraph, the following factors must be considered (In re Wands, 8 USPQ2d 1400, 1404 (CAFC, 1988)):

- 1) Breadth of claims.
- 2) Nature of invention.
- 3) State of prior art.
- 4) Level of ordinary skill in the art.
- 5) Level predictability in the art.
- 6) Amount of direction and guidance provided by the inventor.
- 7) Existence of working examples.
- 8) Quantity of experimentation needed to make or use the invention based on the content of the disclosure.

The breadth of the claimed invention involves a process of making any organic compound. The nature of the invention is in the field of a process of making chemical

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compounds wherein applicant is claiming a method of making any organic compound. The state of the prior art is what prior art knows about the nature of the invention. There is no known prior art claiming a process for making all organic compounds. The level of ordinary skill in the art is limited to a process of making α -hydroxy- γ,γ -dimethyl- γ -butyrolactone as disclosed in the specification. The predictability or lack thereof in the art refers to the ability of one skilled in the art to extrapolate the disclosed or known results to the claimed invention. The lower the predictability, the higher the direction and guidance that must be provided by applicant. In the instant invention the predictability is very low and consequently, the need for higher levels of direction and guidance by applicant. However, the amount of direction and guidance provided by applicant is limited to a process of making α -hydroxy- γ,γ -dimethyl- γ -butyrolactone comprising the reaction of 2-propanol with ethyl acrylate in the presence of N-hydroxyphthalimide. There are very large varieties of processes of making different organic compounds wherein different mechanisms are involved. There is no evidence in the specification that established correlation between applicant's experiment and a process of making any organic compound. See Ex parte Mass, 9 USPQ2d 1746, 1987. Therefore, the quantity of experimentation required to use the process as claimed, based on applicant's limited disclosure would be undue burden because, one of ordinary skill in the art would have to perform significant amount of experiments. By reciting the process as comprising the reaction of 2-propanol with ethyl acrylate in the presence of N-hydroxyphthalimide in claims 1 and 3 the rejection would be overcome.

Applicant's arguments filed 9/16/04 have been fully considered but they are not persuasive. Applicant asked the Examiner to consider Table R3. The Examiner is in total agreement with Applicant that the table provides examples of what should have been in the specification and the claims. Therefore, by adding the table to the specification and applicable structures to the claims the rejection would be overcome. However, Applicant should note that

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adding a new subject matter to the specification would raise the issue of new matter rejection. Applicant argues that he/she has problem understanding *In re Wand* analysis in the last Office Action. The analysis is limited to the elected process not all the different processes in the case and it would be undue burden for one of ordinary skill in the art to try every compound capable of forming stable radical of (A1), (A2), (A3) and any radical scavenging compound of (B1), (B2), (B3) in order determine which are applicable in practicing the invention as claimed.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 1, 3, 21, 23-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 3 fail to recite the specific reagents and product thereof. Applicant cannot claim all compounds of (A1), (A2) and (A3), capable of forming a stable radical; all radical scavenging compounds of (B1), (B2) and (B3) that are applicable in the instant process. Also, the product of the reaction is not recited in the claims. Applicant must claim only the reagent compound(s) that embody applicant's invention. Therefore, claims 1, 3, 21 are indefinite. A claim must stand alone to define the inventions, and incorporation into the claims by reference to the specification or an external source is not permitted. Ex parte Fressola, 27 USPQ 2d 1608, BdPatApp & Inter. (1993). In patent examination, it is essential for claims to be precise, clear, correct, and unambiguous. *In re Zletz*, 893 F.2d 319, 13 USPQ2d 1320 (Fed. Cir. 1989).

By reciting the process as comprising the reaction of 2-propanol with ethyl acrylate in the presence of N-hydroxyphthalimide in claims 1 and 3 the rejection would be overcome.

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Applicant should note the possibility of claims 1, 3, 21, 23-24 been duplicates following amendment of the claims as suggested above.

The elected process is an addition reaction. However, claim 3 recites the product as addition, substitution or oxidized product. This is also true of claim 1. Therefore, claims 1, 3, 21, 23-24 are indefinite. Appropriate correction is required.

The phraseology "an atom constituting an unsaturated bond of an unsaturated compound" line 7, claim 1, and in every occurrence, renders claims 1, 3, 21, 23-24 indefinite. An atom may have or form an unsaturated bond but cannot in of itself constitutes an unsaturated bond.

While applicant may be his or her own lexicographer, a term in a claim may not be given a meaning repugnant to the usual meaning of that term. See *In re Hill*, 161 F.2d 367, 73 USPQ 482 (CCPA 1947).

Applicant's arguments filed 9/16/04 have been fully considered but they are not persuasive. Applicant argues that the instant invention involves reactions of compounds designated as (A) and (B) and therefore all the pending claims are allowable. This is not persuasive because addition, substitution and oxidation reactions are different processes, each having a different mechanism. Even in the instant invention, each process has different starting materials and different products. In claims 2 and 3, which have similar starting materials the products are different. In claim 1 and the specification, Applicant attempts to combine all the different processes as one thereby obliterating the identities of the reagents and the products by defining the substituents as organic groups/compounds and the products as organic compounds. Applicant also identifies the reagents with their functional groups, such as alcohol, imide, etc., which is analogous to saying "a tailpipe" or "a tire" is the same as "Honda Accord", etc.

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In the Paper filed 9/16/04, Applicant contends that the Examiner fails "to come to grips with the merits of the present invention [and deprives] Applicants of patent protection to which they are entitled." This is not persuasive because, coming to grips with an invention is not the statutory basis for patentability. The duty of the Examiner is not limited to protecting prior arts it includes protecting Applicants such that issued patents are not subject to invalidation by courts. Any patent issuing from the instant claims and specification, without appropriate corrections, is voidable for failure to meet statutory requirements as set forth above.

Specification

35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with terms and phraseologies, which are idiomatic and not clear. The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph. For example, see page 3, second paragraph, lines 7-8; page 6, second paragraph, line 5. An atom may have "unsaturated bond" but cannot in of itself constitute an unsaturated bond.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Telephone Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Taofiq A. Solola, PhD, J.D. whose telephone number is (571) 272-0709.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Joseph McKane, can be reached on (571) 272-0699. The fax phone number for this Group is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-1600.

A handwritten signature in black ink, appearing to read 'Solola', with a stylized flourish at the beginning.

**TAOFIQ SOLOLA
PRIMARY EXAMINER**

Group 1626

November 29, 2004